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# CDF Operations Report

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18-DEC-2003  
CDF Weekly Meeting



# HISTORY

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- Thursday, Dec. 4: Massive quench damages Tevatron.
- Saturday, Dec. 6: "Quick" repairs fail, decision is made to warm up C-1 house to repair conning tower at C-19 (estimate 1 week). [CDF Access: One quadrant of COT stereo SL7 recovered by disabling cell 86.]
- Monday, Dec. 8: Decision is made to repair all conning towers in C-1, (estimate now Tevatron cold again on Tuesday, December 16.) Accelerator Division investigates IP point issues.
- Dec. 8-12: CDF in supervised access. Silicon recovers 2 ladders by replacing junction card. Lots of other smaller items worked on in collision hall.
- Friday, Dec. 12: Decision is made to move CDF low beta quads to lower IP by 3.8 mm.
- Saturday, Dec. 13: West side quads moved.
- Sunday, Dec. 14: East side quads moved.



## HISTORY (cont'd)

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- Monday, Dec. 15: Tevatron cold and startup begins. Three corrector element circuits are open in D-49 but not critical. Protons circulated
- Tuesday, Dec. 16: Tev startup continues, abort kicker studies are completed. Problems with quench protection circuit hold off first store.
- Wednesday, Dec. 17: Shot goes in very smoothly at 1500.
  - Pbar stack at record high of 245 mA.
  - Shot 90 mA and transfer efficiencies were very high.
  - CDF losses low but abort gap appears high.
  - Plan for next shot is 70% of stack (currently 205 mA)

**THANKS TO EVERYONE IN ACCELERATOR  
DIVISION AND CDF WHO HAS WORKED SO HARD  
OVER LAST TWO WEEKS TO ACCOMPLISH A  
NUMBER OF DIFFICULT TASKS!**



# STORE SUMMARY

Start Date	Store	Duration (hours)	Inst Lum Initial <small>e30 cm<sup>-2</sup> s<sup>-1</sup></small>	Int. Lum Delivered <small>nb-1</small>	Live Lum <small>nb-1</small>	Eff.	Comment
We 12/17	3101	>20	26.5	~1200	~700	~60%	No Silicon
Total		>20		~1200	~700	~60%	

## Notes for Store 3101:

- Took minimum bias run to determine new beamline. XFT roads changed and are being verified by Kevin Lannon and Ben Kilminster.
- Tested trigger table TEST\_ALPHA\_CLUSTERING[2,367,403]
- Tested trigger table TEST\_UBER\_PRESCALE[5,360,406] - "ultra prescaling"
- Tested trigger table MINIMUM\_BIAS\_1[11,368,409] - 5.1 executable in Level3. (all trigger test were successful!)
- COT SL7 running at 98% HV (good but not great)
- Owl shift ran physics (nosilicon) for complete shift with 95% efficiency
- Accelerator Division doing separator and A48 collimator studies at E-O-S.

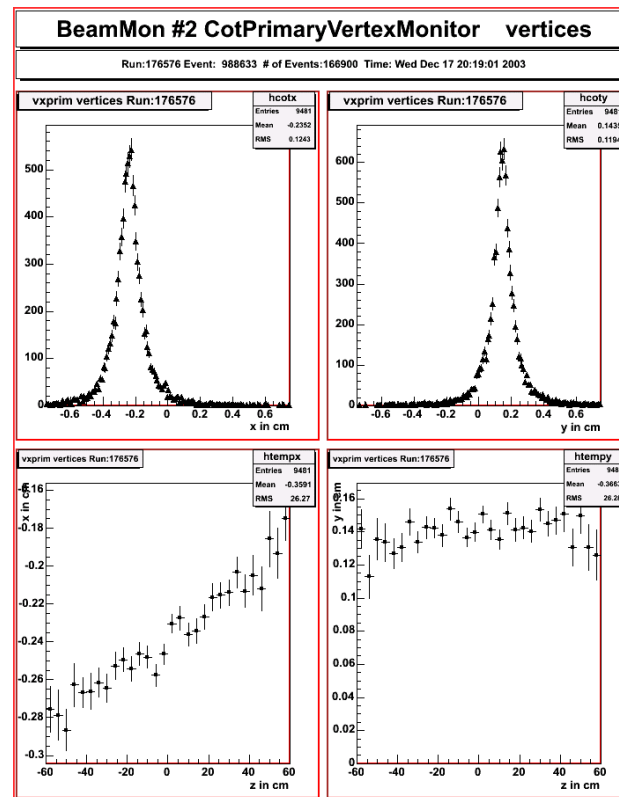


# Beam Position

- COT Primary Vertex Position
- (please don't quote these numbers)

Date	Run	Cotx	Coty
12/1/03	175288	-.1975	0.5722
12/17/02	176576	-.2352	0.1435

"Slope" of beam through detector was also targeted for reduction by quad moves. I don't have any values here. (Rob?)





# PLANS

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- REQUEST - GROUPS SHOULD WORK HARD TO REVALIDATE DATA AND UPDATE REFERENCES PLOTS FOR Consumer Operators.
- CDF looks to be in good shape.
- Will work to integrate silicon over the next store or two. We are encouraged by first store and optimistic.....